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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,182	02/28/2002	Junji Nakanishi	2185-0623P-SP	4912
2292	7590	11/14/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			LEE, SIN J	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/084,182

Applicant(s)

NAKANISHI ET AL.

Examiner

Sin J. Lee

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

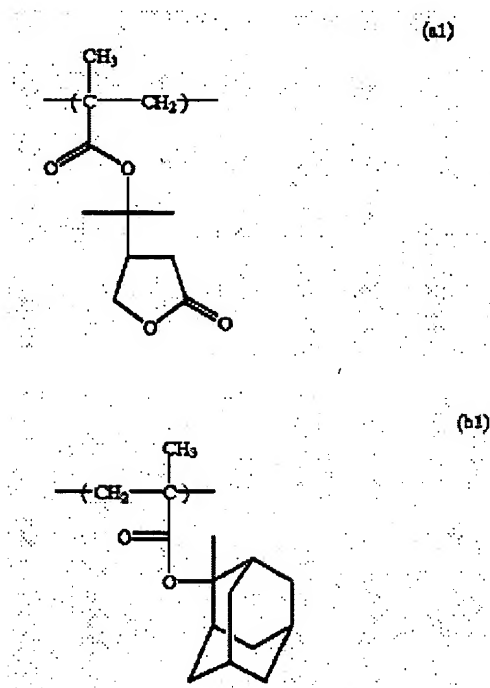
1. Claims 2 and 7-10 are canceled claims.
2. In view of the amendment of September 5, 2006, previous 103(a) rejection on claims 1, 3-6 and 8 over Kodama et al'130 in view of Padmanaban et al'690 and previous 103(a) rejection on claims 1, 3-6 and 8-11 over Kodama et al'130 in view of Kawauchi et al'233 are hereby withdrawn.
3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1, 3-6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodama et al (US 6,291,130 B1) in view of Ishikawa et al (4,671,854).

In Example 3, Kodama teaches a positive photosensitive composition containing Resin (P2), triphenylsulfonium triflate and 1,5-diazabicyclo[4,3,0]non-5-ene (a hindered amine) (see Table 1 and Table 4). Kodama's Resin (P2) contains the following repeating units (see col.14, lines 55-65 and col.35, lines 45-55):



Therefore, Kodama teaches present invention of claim 1 except for present component (D). Kodama teaches that the taught photoresist composition may further contain other additives such as plasticizer (see col.84, lines 50-55). Kodama fails to provide specific examples of suitable plasticizer. One of ordinary skill in the art would have been motivated to use a plasticizer which is well-known and conventional in the art of photoresist materials. Adipates such as dioctyl adipate (another name for di-n-octyl adipate), sebacates, azelates, maleates and citrates are well known in the art as plasticizers used in a photosensitive resin composition for improving film-forming

property of resin and improving flexibility of the coated film as evidenced by Ishikawa et al, col.4, lines 46-64. It would have been obvious to one skilled in the art to use adipates such as dioctyl adipate as Kodama's plasticizer in his photosensitive composition in order to improve film-forming property of resin and flexibility of the coated film. Therefore, Kodama in view of Ishikawa et al would render obvious present inventions of claims 1, 3, 5, 6 and 11.

With respect to present claim 4, Kodama teaches that his resin can furthermore contain one or more other monomer units in order to improve characteristics of the resin (col.57, lines 1-6), and as one of *preferred* examples of such monomer units, Kodama teaches hydroxystyrene monomer unit (col.58, lines 46-54) which increase the alkali solubility of the resin. Therefore, it would have been obvious to one skilled in the art to further include a hydroxystyrene monomer unit in Kodama's Resin (P2) in order to increase alkali solubility of the resin as taught by Kodama. Therefore, Kodama in view of Ishikawa et al would render obvious present invention of claim 4.

Response to Arguments

6. Applicants argue that present invention shows advantageously improved effective sensitivity and resolution properties. However, comparison between Examples vs. Comparative Examples (as presented in Table 2) does not show any *unexpectedly superior* results (the differences in the sensitivity and resolution are very minor). Applicants argue that Kodama'130 fails to disclose or suggest any of present component (D) and that there is no basis to combine Kodama'130 with Ishikawa'854. However, first of all, a plasticizer is an additive conventionally used in a photoresist

composition, and since Kodama clearly teaches that his composition may further contains additives such as plasticizer, one skilled in the art would have found enough motivation to use a plasticizer in Kodama's composition. Also, Ishikawa is cited as a reference that shows that adipates (such as dioctyl adipate), sebacates, azelates, maleates and citrates are well known plasticizers used in a photosensitive resin composition for improving film-forming property of resin and improving flexibility of the coated film. Since Kodama does not name any specific plasticizer, *in the absence of showing of unexpectedly superior results of present invention*, it is still the Examiner's position that it would have been obvious to one skilled in the art to use adipates (such as dioctyl adipate), sebacates, azelates, maleates and citrates, which are well known plasticizers used in a photosensitive resin composition for improving film-forming property of resin and improving flexibility of the coated film, in Kodama's composition.

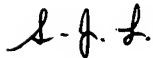
For the reasons stated above, present rejection over Kodama et al'130 in view of Ishikawa et al'854 still stands.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

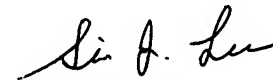
Art Unit: 1752

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S. Lee

November 12, 2006



SIN LEE
PRIMARY EXAMINER